

### REMARKS

Claims 1, 2, 4 to 12, 14 to 22, and 24 to 30 are in the application. Claims 1, 11, and 21 are independent. Favorable reconsideration and further examination are respectfully requested.

In the Office Action, claims 1 to 30 were rejected under 35 U.S.C. §103 over U.S. Patent No. 5,838,813 (Kancler) in view of U.S. Patent No. 5,926,401 (Montag). As shown above, Applicant has amended the claims to define the invention more clearly. In view of these amendments, withdrawal of the art rejection is respectfully requested.

Amended independent claim 1 defines a method of rendering a three-dimensional model comprised of volumetric three-dimensional data. The method includes obtaining a characteristic of a region of the three-dimensional model, and determining a three-dimensional dither pattern for the region based on the characteristic. The three-dimensional dither pattern comprises points in a volumetric region, which are assigned values to make the dither pattern correspond to the characteristic. A dithered version of the three-dimensional model is rendered using the three-dimensional dither pattern. The dithered version of the three-dimensional model comprises plural three-dimensional dither patterns, and each of the plural three-dimensional dither patterns corresponds to a non-overlapping region of the three-dimensional model.

The applied art is not understood to disclose or to suggest the foregoing features of claim 1. In particular, the art is not understood to disclose or to suggest at least that the dithered version of the three-dimensional model comprises plural three-dimensional dither patterns, each of which corresponds to a non-overlapping region of the three-dimensional model.

Initially, Applicant reiterates that Kancler discloses improving the quality of an image by dithering a sensing apparatus used to generate that image. Dithering, in Kancler, refers to moving a sensor in the apparatus slightly between readings, and averaging the results to determine the actual value. It does relate to points in a volumetric region. Montag, which was cited for its alleged disclosure of using a dither pattern comprised of points in a volumetric region, notes that dither patterns, apparently in the visual imaging sense, are used in displaying images representing three-dimensional weather data. Montag, however, does not explain how this is done (see, e.g., column 5, lines 23-24 and 54-60; column 8, lines 18-20). Thus, Montag does not disclose or suggest determining a three-dimensional dither pattern based on a characteristic. Accordingly, Montag and Kancler do not render claim 1 obvious.

Notwithstanding the foregoing, and solely to advance prosecution of the application, Applicant has amended the claims to differentiate them even further from Kancler and Montag. In particular, Applicant has specified that the dithered version of the three-dimensional model comprises plural three-dimensional dither patterns, each of which corresponds to a non-overlapping region of the three-dimensional model. In this regard, Kancler describes dithering a sensing apparatus around areas of an image so that different sensors pass over same areas of the image. Kancler's dither patterns are thus specifically designed to overlap the same regions of an image (see, e.g., column 4, lines 55 and 56 of Kancler, column 7, lines 35 et seq. of Kancler, and Fig. 4 of Kancler). By contrast, the dither patterns of claim 1 do not overlap the same regions of an image, thus making claim 1 considerably different from Kancler.

Montag, which was cited for its alleged disclosure of using a dither pattern comprised of points in a volumetric region, is not understood to remedy the foregoing deficiencies of Kancler vis-à-vis claim 1. Accordingly, claim 1 is believed to be patentable over the art.

Amended independent claims 11 and 21 are article of manufacture and apparatus claims, respectively, that roughly correspond to claim 1. These claims are also believed to be allowable for at least the same reasons noted above with respect to claim 1.

Each of the dependent claims is also believed to define patentable features of the invention. Each dependent claim partakes of the novelty of its corresponding independent claim and, as such, has not been discussed specifically herein.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

In view of the foregoing amendments and remarks, Applicant respectfully submits that the application is in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

Applicant : Thomas M. Cronin  
Serial No. : 09/878,051  
Filed : June 7, 2001  
Page : 12 of 12

Attorney's Docket No.: 10559-478001  
Intel Ref.: P11157

Applicant's undersigned attorney can be reached at the address shown below. All telephone calls should be directed to the undersigned at 617-521-7896.

No additional fees are believed to be due for this Amendment; however, if any fees are due, please charge them to deposit account 06-1050, referencing Attorney Docket No. 10559-478001.

Respectfully submitted,

Date: \_\_\_\_\_

January 18, 2005



Paul A. Pysher  
Reg. No. 40,780

Fish & Richardson P.C.  
225 Franklin Street  
Boston, MA 02110-2804  
Telephone: (617) 542-5070  
Facsimile: (617) 542-8906